

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application.

1. (Canceled)

2. (Currently Amended) A vaccine comprising a recombinant Sendai virus gene-transfer vector encoding an immunodeficiency viral protein selected from the group consisting of Gag, Pol, gp41, and Gag-Pol fusion protein ~~or a part of it~~, wherein the vaccine induces an immune response specific to the immunodeficiency viral protein ~~or the part of it~~.

3. (Canceled)

4. (Original) The vaccine of claim 2, wherein the Sendai virus vector is defective in the V gene.

5. (Currently Amended) A method for vaccination, the method comprising intranasally administering to a subject a recombinant Sendai virus gene-transfer vector encoding a virus protein of an immunodeficiency virus, thereby inducing an immune

response specific to the immunodeficiency viral protein, wherein the immunodeficiency viral protein comprises a protein selected from the group consisting of Gag, Pol, ~~Env, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, gp41, and~~ Gag-Pol fusion protein, ~~and a part of any of~~ them.

6. (Canceled)

7. (Previously Presented) The method of claim 5, wherein the vaccination comprises multiple vaccine inoculations and the subject is inoculated with the recombinant Sendai virus vector at least once.

8. (Canceled)

9. (Previously Presented) The method of claim 5, wherein the method further comprises the step of intramuscularly or intradermally inoculating the subject with a DNA vaccine comprising a naked DNA encoding the genome of the immunodeficiency virus before the inoculation with the Sendai virus vector.

10. (Canceled)

11. (Currently Amended) A method for inducing an immune response specific to a virus protein of an immunodeficiency virus *in vitro*, the method comprising the steps of (a) introducing a recombinant Sendai virus gene-transfer vector encoding the immunodeficiency viral protein into an antigen presenting cell and (b) contacting the antigen presenting cell with a T helper cell and cytotoxic T cell, thereby inducing an immune response specific to the immunodeficiency viral protein, wherein the immunodeficiency viral protein comprises a protein selected from the group consisting of Gag, Pol, Env, gp41, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, Gag-Pol fusion protein, and a part of any of them.

12. (Previously Presented) The method of claim 11, wherein the immunodeficiency viral protein comprises a protein selected from the group consisting of Pol, gp41, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, Gag-Pol fusion protein, and a part of any of them.

13. (Previously Presented) The method of claim 11, wherein the immunodeficiency viral protein comprises a Gag protein or a part of it.

14. (Previously Presented) The method of claim 11, wherein the antigen presenting cell is an autologous herpes virus papio-immortalized B lymphoblastoid cell.

15. (Previously Presented) The method of claim 11, wherein said contacting step comprises co-culturing the antigen presenting cell with the T helper cell and the cytotoxic T cell in a medium.

16. (Currently Amended) A composition comprising a carrier and a recombinant Sendai virus gene-transfer vector encoding a virus protein of an immunodeficiency virus, wherein the immunodeficiency viral protein comprises a protein selected from the group consisting of Pol, gp41, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, Gag-Pol fusion protein, and a part of any of them, and wherein the composition induces an immune response specific to the immunodeficiency viral protein.

17. (Currently Amended) A composition comprising a carrier and a recombinant Sendai virus gene-transfer vector encoding an immunodeficiency viral protein selected from the group consisting of Gag, Pol, gp41, and Gag-Pol fusion protein or a part of it, wherein the composition induces an immune response specific to the immunodeficiency viral protein or the part of it.

18. (Previously Presented) The composition of claim 16, wherein the Sendai virus vector is defective in the V gene.

19. (Previously Presented) The composition of claim 17, wherein the Sendai virus vector is defective in the V gene.

20. (Currently Amended) A method for inducing an immune response specific to a virus protein of an immunodeficiency virus in an animal, the method comprising the step of intranasally administering to said animal a recombinant Sendai virus gene-transfer vector encoding the immunodeficiency viral protein, wherein the immunodeficiency viral protein comprises a protein selected from the group consisting of Gag, Pol, Env, gp41, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, Gag-Pol fusion protein, and a part of any of them.

21-23. (Canceled)

24. (Currently Amended) The method of claim 20, wherein the method further comprises the step of intramuscularly or intradermally inoculating said animal with a DNA vaccine comprising a naked DNA encoding the genome of the immunodeficiency virus before the administration of the Sendai virus gene-transfer vector to said animal.

25. (Canceled)

26. (Previously Presented) The method of claim 24, wherein the genome is defective in env gene and nef gene.

27. (Canceled)

28. (Previously Presented) The method of claim 20, wherein the immunodeficiency viral protein comprises a protein selected from the group consisting of Pol, gp41, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, Gag-Pol fusion protein, and a part of any of them.

29. (Previously Presented) The method of claim 20, wherein the immunodeficiency viral protein comprises the Gag protein or a part of it.

30. (Previously Presented) The method of claim 20, wherein the animal is a mammal.

31. (Previously Presented) The method of claim 30, wherein the mammal is a non-human primate.

32. (Previously Presented) The method of claim 30, wherein the mammal is a

human.

33. (Currently Amended) A method for repressing propagation of an immunodeficiency virus in an animal, the method comprising intranasally administering to said animal a recombinant Sendai virus gene-transfer vector encoding an immunodeficiency viral protein, wherein the immunodeficiency viral protein comprises a protein selected from the group consisting of Gag, Pol, Env, gp41, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, Gag-Pol fusion protein, and a part of any of them.

34-36. (Canceled)

37. (Previously Presented) The method of claim 33, wherein the method further comprises the step of intramuscularly or intradermally inoculating said animal with a DNA vaccine comprising a naked DNA encoding the genome of the immunodeficiency virus before the administration of the Sendai virus vector to said animal.

38. (Canceled)

39. (Previously Presented) The method of claim 37, wherein the method comprises the steps of (a) intramuscularly or intradermally inoculating said animal with a DNA vaccine comprising a naked DNA encoding the genome of the immunodeficiency virus and then (b) inoculating said animal with the Sendai virus vector.

40. (Canceled)

41. (Previously Presented) The method of claim 33, wherein the immunodeficiency viral protein comprises a protein selected from the group consisting of Pol, gp41, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, Gag-Pol fusion protein, and a part of any of them.

42. (Previously Presented) The method of claim 33, wherein the immunodeficiency viral protein comprises the Gag protein or a part of it.

43. (Previously Presented) The method of claim 33, wherein the animal is a mammal.

44. (Previously Presented) The method of claim 43, wherein the mammal is a non-human primate.



45. (Previously Presented) The method of claim 43, wherein the mammal is a human.

46. (Withdrawn) The vaccine of claim 1, wherein the Sendai virus vector is defective in an envelope gene.

47. (Withdrawn) The vaccine of claim 2, wherein the Sendai virus vector defective in an envelope gene.

48. (Withdrawn) The vaccine of claim 46, wherein the envelope gene is F gene.

49. (Withdrawn) The vaccine of claim 47, wherein the envelope gene is F gene.

50. (Withdrawn) The method of claim 5, wherein the Sendai virus vector is defective in an envelope gene.

51. (Withdrawn) The method of claim 50, wherein the envelope gene is F gene.

52. (Withdrawn) The method of claim 11, wherein the Sendai virus vector is

defective in an envelope gene.

53. (Withdrawn) The method of claim 52, wherein the envelope gene is F gene.

54. (Withdrawn) The composition of claim 16, wherein the Sendai virus vector is defective in an envelope gene.

55. (Withdrawn) The composition of claim 17, wherein the Sendai virus vector is defective in an envelope gene.

56. (Withdrawn) The composition of claim 54, wherein the envelope gene is F gene.

57. (Withdrawn) The composition of claim 55, wherein the envelope gene is F gene.

58. (Withdrawn) The method of claim 20, wherein the Sendai virus vector is defective in an envelope gene.

59. (Withdrawn) The method of claim 58, wherein the envelope gene is F gene.

60. (Withdrawn) The method of claim 33, wherein the Sendai virus vector is defective in an envelope gene.

61. (Withdrawn) The method of claim 60, wherein the envelope gene is F gene.

62. (Previously Presented) The method of claim 5, wherein the Sendai virus vector is defective in the V gene.

63. (Previously Presented) The method of claim 20, wherein the Sendai virus vector is defective in the V gene.

64. (Previously Presented) The method of claim 33, wherein the Sendai virus vector is defective in the V gene.

65. (Previously Presented ) The vaccine of claim 2, wherein the immunodeficiency viral protein is Gag.

66. (Previously Presented) The composition of claim 17, wherein the immunodeficiency viral protein is Gag.

67. (New) The method of claim 11, wherein the part is a processed product or an epitope.

68. (New) The composition of claim 16, wherein the part is a processed product or an epitope.

69. (New) The composition of claim 17, wherein the part is a processed product or an epitope.

70. (New) The method of claim 20, wherein the part is a processed product or an epitope.

71. (New) The method of claim 33, wherein the part is a processed product or an epitope.

72. (New) A method of reducing setpoint plasma viral loads of an immunodeficiency virus in an animal, wherein the method comprising intranasally administering to said animal a recombinant Sendai virus gene-transfer vector encoding an immunodeficiency viral protein, wherein the immunodeficiency viral protein comprises a

protein selected from the group consisting of Gag, Pol, Env, gp41, Tat, Rev, Vpu, Vpx, Vpr, Vif, Nef, Gag-Pol fusion protein, and a part of any of them.